

doors so designed as to ensure watertightness and structural integrity commensurate with the surrounding shell plating, to the satisfaction of the assigning authority. The arrangements shall be subject to tightness tests at the initial survey and at such subsequent surveys or more frequent intervals as deemed necessary. The number of such openings shall be the minimum compatible with the design and proper working of the vessel.

(b) Unless permitted by the Commandant the lower edge of such openings shall not be below a line drawn parallel to the freeboard deck at side, which has at its lowest point the upper edge of the uppermost load line.

[CGFR 68-60, 33 FR 10062, July 12, 1968, as amended by CGFR 68-126, 34 FR 9014, June 5, 1969]

§ 42.15-60 Scuppers, inlets, and discharges.

(a) Discharges led through the shell either from spaces below the freeboard deck or from within superstructures and deckhouses on the freeboard deck fitted with doors complying with the requirements of § 42.15-10 shall be fitted with efficient and accessible means for preventing water from passing inboard. Normally, each separate discharge shall have one automatic nonreturn valve with a positive means of closing it from a position above the freeboard deck. Where, however, the vertical distance from the summer load waterline to the inboard end of the discharge pipe exceeds $0.01L$, the discharge may have two automatic nonreturn valves without positive means of closing: *Provided*, That the inboard valve is always accessible for examination under service conditions; where that vertical distance exceeds $0.02L$ a single automatic nonreturn valve without positive means of closing may be accepted subject to the approval of the assigning authority. The means for operating the positive action valve shall be readily accessible and provided with an indicator showing whether the valve is open or closed.

(b) In manned machinery spaces main and auxiliary sea inlets and discharges in connection with the operation of machinery may be controlled locally. The controls shall be readily accessible

and shall be provided with indicators showing whether the valves are open or closed.

(c) Scuppers and discharge pipes originating at any level and penetrating the shell either more than $17\frac{1}{2}$ inches below the freeboard deck or less than $23\frac{1}{2}$ inches above the summer load waterline shall be provided with a non-return valve at the shell. This valve, unless required by paragraph (a) of this section, may be omitted if the piping is of thickness as specified in Part 56 in Subchapter F (Marine Engineering) of this chapter.

(d) Scuppers leading from superstructures or deckhouses not fitted with doors complying with the requirements of § 42.15-10 shall be led overboard.

(e) All valves and shell fittings required by this section shall be of steel, bronze, or other approved ductile material. Valves of ordinary cast iron or similar material are not acceptable. All pipes to which this section refers shall be of steel or other equivalent material to the satisfaction of the assigning authority.

[CGFR 68-60, 33 FR 10062, July 12, 1968, as amended by CGFR 68-126, 34 FR 9014, June 5, 1969]

§ 42.15-65 Side scuttles.

(a) Side scuttles to spaces below the freeboard deck or to spaces within enclosed superstructures shall be fitted with efficient hinged inside deadlights arranged so that they can be effectively closed and secured watertight.

(b) No side scuttle shall be fitted in a position so that its sill is below a line drawn parallel to the freeboard deck at side and having its lowest point 2.5 percent of the breadth (B) above the load waterline, or $19\frac{1}{2}$ inches, which ever is the greater distance.

(c) The side scuttles, together with their glasses, if fitted, and deadlights, shall be of substantial and approved construction.

[CGFR 68-60, 33 FR 10062, July 12, 1968]

§ 42.15-70 Freeing ports.

(a) Where bulwarks on the weather portions of freeboard or superstructure decks form wells, ample provision shall be made for rapidly freeing the deck of